## REMARKS

The non-final Office Action dated Dec. 23, 2009, has been carefully reviewed and the following remarks are responsive thereto.

## Claim Rejections under 35 USC§103

The Office Action rejected, under 35 U.S.C. 103(a), claims 1, 2, and 5-12 as being unpatentable over Watson (US Pub 2003/0227903) in view of Akman (US Pat 7146410), and claims 3-4 and 13-20 as being unpatentable over Watson in view of Akman and further in view of Beser (US Pat 6523068). However, the Applicant respectfully disagrees, for reasons as follows:

Claim 1 of the present application defines:

"A system for implementing multimedia calls across a private network boundary, comprising a public network and at least one private network, characterized in that the system comprises:

at least one media gateway for connecting with multimedia terminals of various protocols;

at least one boundary gateway for connecting the private network and the public network, and performing the translation of a private network address and a public network address, wherein each boundary gateway is provided with a unique subnetwork ID to correspond to the private network connected therewith;

a call controller for establishing calls and controlling service logics, in which is recorded the correspondence relationship information of all said boundary gateways and the subnetwork IDs;

wherein the call controller processes the call concerning a private network according to the subnetwork ID information" (emphasis added).

Applicant respectfully submits that the above technical features underlined in Claim 1 are not disclosed or taught by any of Watson, Akman and Beser or a combination thereof.

Comparing with Watson, at least the following distinguishing features of Claim 1 are not disclosed or taught by Watson:

1) Watson fails to disclose or teach the feature "at least one boundary gateway" in Claim 1. In particular, the "router" in Watson (shown in FIG. 1) is not equivalent to the "boundary gateway"

in the present invention. A person skilled in the art will understand that a router and a boundary gateway are essentially different network devices. For example, the boundary gateway in the present invention refers to a protocol analysis gateway (lines 12-13 on page 20), and a protocol analysis gateway can implement more complex functions (line 16 on page 3 to line 4 on page 4), compared with a router, which is generally used to route a packet. So, Applicant respectfully submits that the feature "at least one boundary gateway" in Claim 1 is not disclosed or taught by Watson.

2) The feature "each boundary gateway is provided with a unique subnetwork ID to correspond to the private network connected therewith" in Claim 1 is not disclosed or taught by Watson.

Firstly, as mentioned above, Watson does not disclose "boundary gateway" as recited in Claim 1, let alone "each boundary gateway is provided with a unique subnetwork ID to correspond to the private network connected therewith."

In particular, Watson does not involve any concept of "subnetwork ID." Watson discloses "Port assignment module 340 assigns a dedicated port to the station 150 if the station 150 is behind a firewall" (paragraph [0063]), "Heartbeat (or dummy packet) generator 390 opens the one or more dedicated ports associated with station 150 at intermittent intervals," and "only voice and/or video data is received via the dedicated ports" (paragraph [0065]), where "stations 150 are VOIP stations that are used for real-time bi-directional multimedia communications" (paragraph [0028]). It can be seen that the "dedicated port" herein is a port for media transmission allocated to a VOIP station and the media transmission can be controlled with the "heartbeat generator 390."

As also described in the specification (page 22, lines 5-12) of the present application, "the subnetworks where all the media gateways in the domain that the call controller 200 can control reside is numbered, and allocated an ID unique in the entire domain," and "when the boundary gateway 100, 101, 102 is configured, it must be configured with the ID of the subnetwork where it resides, and the ID must be consistent with the corresponding subnetwork ID numbered in the call controller 200." It can be seen that the "subnetwork ID" is a unique ID allocated to a subnetwork and is configured for a boundary gateway thereof in a domain dominated by a call controller.

The technical feature of "subnetwork ID" in the claim and that of "dedicated port" in Watson are essentially different for at least the following reasons:

**a)** a "subnetwork ID" is allocated to a subnetwork where a plurality of multimedia terminals may reside (as shown in Fig. 1 of the present application); whereas, a "dedicated port" is allocated to a VOIP station, i.e., a terminal;

**b)** the purpose of "subnetwork ID" is to, for example, uniquely identify a subnetwork within a domain dominated by a call controller, so that a signaling tunnel can be established between a media gateway and the call controller, and/or a media tunnel can be established between media gateways in different private networks (please see the description corresponding to Fig. 2 and Fig. 4 in the present application); whereas, the purpose of a "dedicated port" is to control media transmissions of VOIP stations;

**c)** a "subnetwork ID" corresponding to a subnetwork is configured for a boundary gateway of the subnetwork; whereas, a "dedicated port" is allocated to a VOIP station and controlled by a "heartbeat generator" of the VOIP station.

Further, Watson discloses that the "dedicated port" may be involved with a private IP address: "port assignment module 340 assigns the dedicated port by adding the least significant byte value to the base port" and "if the private IP address is 192.168.1.8, the station 150 will be assigned port 2008" (paragraph.[0063]). However, the "private IP address" herein is not equivalent to the "subnetwork ID" either. The reason is: as is known to a person skilled in the art, a private IP address is a network address of a ***terminal*** in a private network, and private IP addresses in different private networks may be the same, which is one of the reasons why a private network address has to be translated to a public network address during communication across private networks; thus, a private IP address apparently can **not** be used as a **unique** identity of a **private network**; whereas, as stated above, the "subnetwork ID" of the present invention may be used to **uniquely** identify a subnetwork in a domain dominated by a call controller. In addition, from this analysis, it can also be seen that the correspondence between a boundary gateway and a private network connected therewith in the present invention is essentially different from the translation of a private address to a public address in Watson.

**3)** As defined in Claim 1, there is "a call controller", in which "is recorded the correspondence relationship information of all said boundary gateways and the subnetwork IDs; wherein the call controller processes the call concerning a private network according to the subnetwork ID information." Watson fails to disclose these features. In particular, Watson

discloses an exemplary VOIP telephone call between endpoints ([0030]-[0035]), wherein "PPG 120 finds the IP address of station 150*f* from a database." However, the "IP address" herein is not equivalent to the "subnetwork ID" either, and the reason is: an "IP address" is a network address of a particular terminal, although in some occasions it may be used to identify the terminal, but since a subnetwork generally comprises a plurality of terminals, an IP address of a particular terminal therein can not be used to uniquely identify the subnetwork.

Based on the above analysis, Applicant respectfully submits that Watson fails to teach or disclose at least the technical features "at least one boundary gateway," "each boundary gateway is provided with a unique subnetwork ID to correspond to the private network connected therewith" and in "a call controller" "is recorded the correspondence relationship information of all said boundary gateways and the subnetwork IDs; wherein the call controller processes the call concerning a private network according to the subnetwork ID information" in claim 1. And these features are referred to as distinguishing features of Claim 1 from Watson.

Akman and Beser fail to cure these deficiencies of Watson. Akman discloses systems and methods for ensuring that control protocols can be used between media gateways and media gateway controllers that reside on separate IP networks (Abstract); Beser discloses methods for processing a media flow at an end of a tunneling association in a data network (Abstract); the above distinguishing features of Claim 1 are not disclosed or taught by Akman or Beser either.

Therefore, Applicant respectfully submits that the above distinguishing features in Claim 1 are not disclosed or taught by any of Watson, Akman and Beser or a combination thereof. And since those distinguishing features are not common general knowledge, and with those distinguishing features, the present invention solves the drawbacks in current VoIP methods and shortcomings of the present NAT scheme (please see the "Background of the invention" in the specification) and has many advantageous technical effects (please see line 23 on page 35 to line 4 on page 37), Applicant respectfully submits that Claim 1 is inventive and thus conforms to the provisions of 35 U.S.C. 103(a).

Dependent Claims 2-10 depend on Claim 1, as stated above, independent Claim 1 conforms to the provisions of 35 U.S.C. 103 (a), thus dependent Claims 2-10 are also in conformity with the provisions of 35 U.S.C. 103(a).

Claim 11 defines a method corresponding to the system defined by Claim 1. For reasons similar to those stated for Claim 1, Applicant respectfully submits that independent Claim 11 is also inventive and thus in conformity with the provisions of 35 U.S.C. 103(a).

Dependent Claims 12-20 depend on Claim 11, as independent Claim 11 conforms to the provisions of 35 U.S.C. 103 (a), dependent Claims 12-20 are also in conformity with the provisions of 35 U.S.C. 103(a).

Therefore, Applicant respectfully submits that all the claims of the present application are in conformity with the provisions of 35 U.S.C. 103 (a), and hence request reconsideration and withdrawal of the rejection under 35 U.S.C. 103(a).

## CONCLUSION

In light of the above, the Applicants submit that the application is in condition for allowance and respectfully request that a Notice of Allowance be issued in this case. The Applicants also request that the Office telephone the attorneys of record in the event a telephone discussion would be helpful in advancing the prosecution of the present application.

Respectfully submitted,

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